

FACTORS TO CONSIDER WHEN USING TRI DATA

TRI data, in conjunction with other information, can be used as a starting point in evaluating exposures that may result from releases and other waste management activities which involve toxic chemicals. The determination of potential risk depends upon many factors, including the toxicity of the chemical, the fate of the chemical, and the amount and duration of human or other exposure to the chemical after it is released. Listed below are some of the factors that should be considered when reviewing TRI data.

Toxicity of the Chemical

- **The TRI list consists of chemicals that vary in their ability to produce toxic effects.** Some high-volume releases of less toxic chemicals may appear to be a more serious problem than lower-volume releases of more toxic chemicals, when just the opposite may be true.

Exposure Considerations

- **Potential degradation or persistence of the chemical in the environment.** Exposure to a chemical is dependent upon the chemical being available in the environment.
- **Bioconcentration of the chemical in the food chain.** As a chemical becomes incorporated in the food chain, it may concentrate or disperse as it moves up the food chain.

- **The environmental medium (air, water, land, or underground injection) to which the toxic chemical is released.** Chemical exposure of a population depends on the environmental medium to which a chemical is released.
- **The type of off-site facility receiving the chemical and the efficiency of its waste management practices.** The amount of a toxic chemical that ultimately enters the environment depends on how the chemical was handled during treatment, energy recovery, or recycling activities.
- **On-site waste management of the toxic chemical.** As with off-site waste management, the amount of the toxic chemical released to the environment depends on how the chemical was handled during treatment, energy recovery, or recycling activities.

For More Free Information On:

- ♦ The TRI program
- ♦ The toxicity of a chemical
- ♦ A list of TRI toxic chemicals
- ♦ Laws and regulations
- ♦ State TRI programs
- ♦ Other TRI information

Please visit EPA's TRI website at:
www.epa.gov/tri or contact the EPCRA Call Center at (800) 424-9346.



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TOXICS RELEASE INVENTORY (TRI)

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It's Your Right to Know

THE TOXICS RELEASE INVENTORY (TRI)

In 1984, a deadly cloud of methyl isocyanate killed thousands of people in Bhopal, India. Shortly thereafter, another chemical release occurred in West Virginia. These incidents underscored demands by industrial workers and communities in several states for information on hazardous materials and toxic chemicals. Public interest and environmental groups around the country accelerated demands for information on toxic chemicals being released "beyond the fence line" -- outside of the facility. Against this background, the Emergency Planning and Community Right-to-Know Act (EPCRA) was enacted in 1986 to inform communities of chemical hazards in their areas:

- ◆ The Emergency Planning provisions of EPCRA - Sections 311 and 312 - require businesses to report the locations and quantities of chemicals stored on-site to state and local governments in order to help communities prepare to respond to chemical spills and similar emergencies.
- ◆ The Community Right-to-Know provision of EPCRA - Section 313 - requires certain industrial facilities to annually report data to EPA and the states on its releases and other waste management activities for certain toxic chemicals and make the data available to the public in a database – the Toxics Release Inventory (TRI).

In 1990, through the Pollution Prevention Act (PPA), Congress expanded the information required to be reported to TRI by facilities.

TRI Reporting Requirements

Each year, facilities that meet certain activity thresholds must report their releases and other waste management activities for listed toxic chemicals to EPA and to their state or tribal entity. A facility must report if it meets the following three criteria:

- ◆ The facility falls within one of the following industrial categories: manufacturing; metal mining; coal mining; electric generating facilities that combust coal and/or oil; chemical wholesale distributors; petroleum terminals and bulk storage facilities; RCRA Subtitle C treatment, storage, and disposal (TSD) facilities; and solvent recovery services.
- ◆ Has 10 or more full-time employee equivalents, and
- ◆ Manufactures or processes more than 25,000 pounds or otherwise uses more than 10,000 pounds of any listed chemical during the calendar year. Persistent, bioaccumulative and toxic (PBT) chemicals are subject to different thresholds of 10 pounds, 100 pounds or 0.1 grams depending on the chemical.

EPA compiles the TRI data each year and makes it available through several data access tools, including the *TRI Explorer* (<http://www.epa.gov/triexplorer>) and *Envirofacts* (<http://www.epa.gov/enviro>).

Benefits of TRI Data

The TRI program has given the public unprecedented access to toxic chemical release and other waste management data at the local, state, regional, and national level.

Responsible use of this information can provide opportunities for:

- ◆ Local citizens to identify potential concerns related to chemical release and waste management activities.
- ◆ Federal, state, and local governments to compare facilities or geographic areas, identify hot spots, evaluate existing environmental programs, set regulatory priorities, and track pollution control and waste reduction progress.
- ◆ Industry to determine reduction costs associated with toxic chemicals in waste, establish reduction targets, measure and document progress toward reduction goals, and detect promising areas for pollution prevention activities.

Limitations of TRI Data

While TRI provides federal, state and local governments, the public, and industry with key environmental data, it has some limitations that must be considered:

- ◆ TRI data reflect releases and other waste management of chemicals, not exposures of the public to those chemicals.
- ◆ Although the Agency has expanded the TRI program, it does not cover all sources of releases and other waste management activities such as car emissions, nor does it cover all toxic chemicals or industry sectors.

Beyond reporting release and waste management activities, only limited and very general information on chemical storage is provided. In addition, while many facilities base their TRI data on monitoring data, others report estimated data to TRI as the program does not mandate release monitoring.